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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,682	11/25/2003	Kwang Soo Kim	9988.088.00-US	3059
30827      7590      03/17/2008 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				
EXAMINER				
MARKOFF, ALEXANDER				
ART UNIT		PAPER NUMBER		
1792				
MAIL DATE		DELIVERY MODE		
03/17/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/720,682

**Applicant(s)**

KIM ET AL.

**Examiner**

Alexander Markoff

**Art Unit**

1792

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/19/07 has been entered.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicants amended the claims to recite alternating between a freewheeling and a temporarily braking state. Such is not supported by the original disclosure.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
6. The applicants amended the claims to require driving the motor in one direction and then driving the motor in the opposite direction when the rotational speed of the motor reaches the predetermined value. It is not clear what is meant. How can two sequential steps be conducted at the same time? Step is required when the rotational speed of the motor reaches the predetermined value?

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 3 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Sears (US 2003/0188389).

Sears teaches a method as claimed. See entire document, especially parts [0005]-[0007] and [0014]-[0019].

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Khan et al (US Patent No 3,116,243).

Khan et al teach a method as claimed. See entire document, especially Figure 6 and the related description. Since the method requires conducting the specific steps at specific rotational speed it is inherent that the rotational speed is detected and compared to a needed value.

As to the freewheeling: Khan et al do not teach that the motor is operated during deceleration steps, thereby, it is inherent that motor is freewheeling at that time. In alternative, it would have been obvious to an ordinary artisan at the time the invention was made not to energize the motor during deceleration in order to save energy.

As to claim 3, which requires braking:

It is noted that the claims do not specify braking. It is also noted that at least some braking force is always applied to the motor due to the mechanical friction of the parts of the apparatus.

The examiner would like to point out that the claims do not exclude braking during any time period or any method step.

13. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over KR 10-2001-0037081 in view of Sonoda et al (US 2003/0046962) and JP 05-269292.

KR 10-2001-0037081 teaches a method for stopping a drum type washing machine after dewatering by braking the machine intermittently if unbalanced conditions are sensed.

KR 10-2001-0037081 does not teach the use of speed control to determine and prevent unbalanced rotation.

However, Sonoda et al and JP 05-269292 teach that it was known to control the rotational speed of the motor to determine and prevent unbalanced conditions. Sonoda et al teach such for a drum type machine. JP 05-269292 teaches such after dewatering process. Both documents further teach application of force to the motor by braking intermittently (JP document) and/or by reverse rotation braking (Sonoda et al). Sonoda et al teach that reverse rotation braking separates laundry from the drum. See entire JP document (translation is provided), especially Figs. 1 and 4 and the related description and entire document of Sonoda et al, especially parts [0063] – [0099].

It would have been obvious to an ordinary artisan at the time the invention was made to use control and braking disclosed by JP 05-269292 and Sonoda et al in operation of a drum-type machine after dewatering process disclosed by KR 10-2001-0037081 in order to prevent unbalanced operation and safely and noise free stop the machine because KR 10-2001-0037081 teaches that unbalanced conditions could be presented in the stopping the drum type machine after dewatering and because Sonoda et al and JP 05-269292 teach that such conditions can be prevented by controlling the speed of the motor and applications of braking based on such control; and because

Sonoda et al and JP 05-269292 teach such braking was conventional and recommended by the prior art to prevent unbalanced operation.

***Response to Arguments***

14. Applicant's arguments filed 10/19/07 have been fully considered but they are not persuasive.

The applicants allege that Khan et al do not teach freewheeling. The applicants rely on the figure 6 of the document to support their arguments. The applicants state that a sharp change in speed with a constant deceleration indicates full and constant motor control.

This is not persuasive:

Khan et al do not teach that the motor is operated during deceleration steps, thereby, it is inherent that motor is freewheeling at that time.

In alternative, it would have been obvious to an ordinary artisan at the time the invention was made not to energize the motor during deceleration in order to save energy.

Further, it is noted that the applicants' arguments regarding Figure 6 of Khan et al contradict to their own disclosure. It is noted that Figure 4A of the instant application also shows a sharp change in the speed and a constant deceleration, however, the referenced Figure represents an embodiment of braking with freewheeling.

The applicants allege that the rejection over the KR document in combination with JP 05-269292 and Sonoda et al is not proper. The applicants argue that the operation in Sonoda et al occurs, while the motor is powered and controlled. The



applicants further argue that it would not have been obvious to combine the KR document and Sonoda. The applicants based their statement on the allegation that Sonoda et al teach constant braking.

This is not persuasive.

Sonoda et al teach braking of the motor by the motor itself. Thereby, it is not possible that the motor is energized to rotate at that time. Moreover, Sonoda et al teach freewheeling and non-constant braking. See the cited parts of the document, especially parts [0080] and [0093]-[0094].

The applicants further allege that the JP document does not teach freewheeling. This is not persuasive because the applicants themselves admitted that the JP document teaches intermittently braking the motor.

The applicants further argue that the KR document could not be properly combined with the JP document because the KR document teaches a sudden braking mode, while the JP document teaches intermittently braking mode.

This is not persuasive.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

It would have been obvious to an ordinary artisan at the time the invention was made to use control and braking disclosed by JP 05-269292 and Sonoda et al in

operation of a drum-type machine after dewatering process disclosed by KR 10-2001-0037081 in order to prevent unbalanced operation and safely and noise free stop the machine because KR 10-2001-0037081 teaches that unbalanced conditions could be presented in the stopping the drum type machine after dewatering and because Sonoda et al and JP 05-269292 teach that such conditions can be prevented by controlling the speed of the motor and applications of braking based on such control; and because Sonoda et al and JP 05-269292 teach such braking was conventional and recommended by the prior art to prevent unbalanced operation.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander Markoff/  
Primary Examiner, Art Unit 1792

AM